

## **Section 32 Report**

### **Proposed Plan Change 1B (Minimum Flows)**

- **Waianakarua River**
  - **Trotters Creek**
  - **Luggate Creek**
    - **Schedule 2D**

# **Regional Plan: Water for Otago**

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## **1.0 Introduction**

This report assesses Proposed Plan Change 1B (Minimum Flows) to the Regional Plan: Water for Otago (Water Plan) as required by section 32 of the Resource Management Act 1991 (RMA). It should be read in conjunction with the proposed plan change.

The proposal adds three new catchments to Schedule 2A: Specific Minimum Flows, and identifies minimum flow regimes and primary allocation limits for the Waianakarua, Trotters and Luggate catchments. It also adds a new schedule, Schedule 2D: Matters to be considered when setting minimum flows and primary allocation limits.

## **2.0 Background**

The Water Plan was made operative on 1 January 2004. A number of catchments with minimum flows are listed in Schedule 2A. The Otago Regional Council (ORC) intends to add more catchments to this schedule where a minimum flow regime and specified primary allocation limit is seen as the best way to address environmental and/or allocation pressures.

Without a minimum flow, a river catchment's ecological, environmental, social, cultural, recreational and economic values can be seriously impacted by abstraction. The application of a minimum flow regime assists in protecting these values from serious adverse effects; however, this regime also limits abstraction.

There are two parts to setting a minimum flow regime. First, understanding the aquatic in-stream values and how they are affected by flows in the specific catchment. Second, understanding the wider community held values for that catchment.

In-stream aquatic value reports have now been completed for the Waianakarua River, Trotters Creek and Luggate Creek. These reports identify management flows that maintain the aquatic ecosystems.

The ORC has developed a process to identify all other catchment related values that are important to each catchment community. Community workshops have been held with the three communities, initially to identify all the values that are important, and subsequently to test the effect of the minimum flow and primary allocation proposal on these values. Community participants provided qualitative information about the catchment and what is important for them about the river, the features of an acceptable level of low water flow, and what values they want protected at times of low flows. These considerations are identified in the new Schedule 2D.

The following analysis sets out the decision-making process involved in reaching the proposed minimum flows and primary allocation limits, and identifying the Schedule 2D matters.

## **3.0 Analysis of options**

The proposed plan change has two main parts: the establishment of minimum flows and primary allocation limits for three river catchments and Schedule 2D, the matters to be considered when setting minimum flows and allocation limits. Each catchment is analysed in its own right in the first part.

### 3.1 Minimum flows and allocation limits

#### Option 1: Proposed Plan Change

The proposed plan change identifies minimum flow regimes and primary allocation limits for the Waianakarua, Trotters and Luggate catchments. The regimes are determined following a series of workshops with each catchment community. The allocation limits are based on 50% of the 7-day mean annual low flow (MALF) figure for each catchment, or a higher number if the current primary allocation limit significantly exceeds 50% MALF.

#### Option 2: Status Quo

The three catchments are not added to Schedule 2A. Minimum flow regimes and the primary allocation limit continue to be managed in line with the Water Plan.

#### Option 3: Proposed National Environmental Standard on Ecological Flows and Water Levels - Default Minimum Flows (Proposed NES default flows)

This option assumes the Ministry for the Environment's Proposed National Environmental Standard on Ecological Flows and Water Levels (Proposed NES) will be adopted by government. The status quo situation within the Water Plan remains for those catchments with minimum flows and primary allocation limits already listed in Schedule 2A, and the default minimum flows specified in the Proposed NES will be applied to all other surface water bodies.

<b>MINIMUM FLOWS &amp; ALLOCATION LIMITS</b>		
<b>Options</b>	<b>Benefits</b>	<b>Costs</b>
<b>1: Proposed Plan Change</b>	<ul style="list-style-type: none"> <li>▪ Meets the current water plan requirements</li> <li>▪ Allows for community input</li> <li>▪ Acknowledges and assists in protecting community values</li> <li>▪ Enables catchment specific minimum flows</li> <li>▪ Provides for social, cultural, recreational, economic and environmental values</li> <li>▪ Assists in the protection of in-stream values</li> <li>▪ Sustainable river management</li> </ul>	<ul style="list-style-type: none"> <li>▪ Potential economic consequences</li> <li>▪ Reduced operational flexibility for some water users</li> <li>▪ Potential reduction in general abstraction</li> <li>▪ Implementation costs (plan change, administration)</li> <li>▪ Metering and monitoring requirements</li> <li>▪ Plan change timeframes have the potential to be extended by the consultation programme</li> </ul>
<b>2: Status Quo (no change)</b>	<ul style="list-style-type: none"> <li>▪ No plan change required</li> <li>▪ No additional administrative and implementation costs</li> <li>▪ Potential financial and operational impacts on water users reduced</li> <li>▪ Enables greater economic benefits of water abstraction</li> <li>▪ Existing metering and monitoring requirements remain for water users</li> </ul>	<ul style="list-style-type: none"> <li>▪ Current situation of no minimum flow regime will continue</li> <li>▪ Community values not identified</li> <li>▪ Potential ecological, environmental, social, cultural, recreational and economic effects</li> <li>▪ Potential serious adverse effects on in-stream values</li> <li>▪ Unsustainable river management</li> </ul>

<p><b>3: Proposed NES default flows</b></p>	<ul style="list-style-type: none"> <li>▪ General protection for some in-stream values</li> <li>▪ Minimum flows for all water bodies in Otago</li> </ul>	<ul style="list-style-type: none"> <li>▪ One size fits all – inflexible to specific catchment requirements till individualised minimum flow regime set</li> <li>▪ No community involvement or acknowledgement or protection of community values</li> <li>▪ High potential for serious economic impacts</li> <li>▪ Implementation costs (plan change, administration)</li> <li>▪ Reduced operational flexibility for some water users</li> <li>▪ High potential for reduction in general abstraction</li> <li>▪ Metering and monitoring requirements</li> </ul>
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Recommendation

Option 1: Proposed Plan Change is the preferred option. This option assists in the protection of instream values by setting catchment specific minimum flow regimes and primary allocation limits whilst addressing the wider catchment- and community-specific values. It further works toward sustainable river management and meets the requirements of the Water Plan.

**3.2 Analysis by catchment**

The following three tables address the section 32 requirements for each of the three catchment-specific proposals.

<p><b>3.2.1 Waianakarua River:</b></p> <p>Minimum flow      200 litres per second [October – April]  Regime                400 litres per second [May – September]</p> <p>Primary allocation limit      190 litres per second</p>	
<p><b>Benefits</b></p>	<ul style="list-style-type: none"> <li>▪ Meets the requirements of the Water Plan</li> <li>▪ Sets minimum flows at levels that maintain the communities values</li> <li>▪ Allows for community input</li> <li>▪ Sets catchment specific minimum flows and primary allocation limits that give a degree of certainty and security to existing and future users</li> <li>▪ Provides for ecological, environmental, social, cultural, recreational and economic values</li> <li>▪ Provides protection for in-stream values</li> <li>▪ Allows for sustainable river management by ORC and the community</li> </ul>

<b>Costs</b>	<ul style="list-style-type: none"> <li>▪ Has potential economic consequences on water takers</li> <li>▪ Reduces flexibility in the operations of existing water takers</li> <li>▪ There is the potential for reduction in general abstraction especially in dry years</li> <li>▪ Implementation costs</li> <li>▪ Administrative costs</li> <li>▪ The RMA timeframes needed to implement individual minimum flow regimes are lengthy</li> </ul>
<b>Risks</b>	<ul style="list-style-type: none"> <li>▪ There is potential for diversion within the community when there is disagreement regarding the appropriateness of the chosen flow</li> <li>▪ There is a level of uncertainty regarding the actual economic impact on those extracting water and the ability of users to adjust</li> </ul>
<b>Efficiency and Effectiveness</b>	<ul style="list-style-type: none"> <li>▪ Achieves efficiency in the protection of instream, catchment-wide and community identified values</li> <li>▪ Achieves effectiveness in the management of water in the Waianakarua River catchment</li> </ul>
<b>Appropriateness</b>	<ul style="list-style-type: none"> <li>▪ Enables the community to be involved in the setting of minimum flow regimes and awareness of allocation limits that impact on them</li> <li>▪ Is appropriate due to the aesthetic, ecological, environmental, social, cultural, recreational and economic values of the river catchment requiring protection</li> </ul>

### 3.2.2 Trotters Creek

Minimum flow 8 litres per second [October – April]  
 Regime 35 litres per second [May – September]

Primary allocation limit 30 litres per second

<b>Benefits</b>	<ul style="list-style-type: none"> <li>▪ Meets the requirements of the Water Plan</li> <li>▪ Sets minimum flows at levels that will maintain the communities values now and into the future</li> <li>▪ Allows for community input</li> <li>▪ Sets catchment specific minimum flows and primary allocation limits that give a degree of certainty and security to existing and future users</li> <li>▪ Provides for ecological, environmental, social, cultural, recreational and economic values</li> <li>▪ Provides protection for in-stream values</li> <li>▪ Allows for sustainable river management by ORC and the community</li> </ul>
<b>Costs</b>	<ul style="list-style-type: none"> <li>▪ Flow monitoring will need to occur</li> <li>▪ Has potential economic consequences on water takers</li> <li>▪ Reduces flexibility in the operations of existing water takers</li> <li>▪ Implementation costs</li> <li>▪ Administrative costs</li> </ul>

	<ul style="list-style-type: none"> <li>▪ The RMA timeframes needed to implement individual minimum flow regimes are lengthy</li> </ul>
<b>Risks</b>	<ul style="list-style-type: none"> <li>▪ The taking of water as a permitted activity has an unknown impact on the flows within the creek and subsequently on any potential minimum flow regime and the operation of the consented water take</li> </ul>
<b>Efficiency and Effectiveness</b>	<ul style="list-style-type: none"> <li>▪ Is an efficient means of protecting the instream, catchment-wide and community values</li> <li>▪ Is an effective means of managing water in Trotters Creek catchment now and in the future</li> </ul>
<b>Appropriateness</b>	<ul style="list-style-type: none"> <li>▪ Is an appropriate way to maintain the ecological, environmental, social, cultural, recreational and economic values of the river catchment</li> <li>▪ Enables the community to be involved in the setting of minimum flow regimes and awareness of allocation limits that impact on them</li> </ul>

### 3.2.3 Luggate Creek

Minimum flow 180 litres per second [November – April]

Regime 500 litres per second [May – October]

Primary allocation limit 500 litres per second

<b>Benefits</b>	<ul style="list-style-type: none"> <li>▪ Meets the current requirements of the Water Plan</li> <li>▪ Sets minimum flows at levels that will maintain the communities values now and into the future</li> <li>▪ Allows for community input</li> <li>▪ Sets catchment specific minimum flows and primary allocation limits that give a degree of certainty and security to existing and future users</li> <li>▪ Provides for ecological, environmental, social, cultural, recreational and economic values</li> <li>▪ Provides protection for in-stream values, especially rainbow trout spawning</li> <li>▪ Allows for sustainable river management by ORC and the community</li> </ul>
<b>Costs</b>	<ul style="list-style-type: none"> <li>▪ Has potential economic consequences on water users</li> <li>▪ Reduces flexibility in the operations of existing water take consent holders</li> <li>▪ There is the potential for reduction in general abstraction especially in dry years</li> <li>▪ Implementation costs</li> <li>▪ Administrative costs</li> <li>▪ The RMA timeframes needed to implement individual minimum flow regimes are lengthy</li> <li>▪ Metering of takes and monitoring of flows will need to occur</li> </ul>

<b>Risks</b>	<ul style="list-style-type: none"> <li>▪ Future changes in deemed permit ownership and operation may undermine the regimes agreed to by the community</li> <li>▪ There is potential for diversion within the community when there is disagreement regarding the appropriateness of the chosen flow</li> <li>▪ There is a level of uncertainty regarding the actual economic impact on those extracting water and the ability to adjust</li> </ul>
<b>Efficiency and Effectiveness</b>	<ul style="list-style-type: none"> <li>▪ Achieves efficiency in the protection of instream, catchment-wide and community identified values</li> <li>▪ Promotes the importance of efficient use of the water resource amongst all users</li> <li>▪ Is an effective means of managing water in Luggate Creek catchment which incorporates both RMA consented users and Deemed Permit holders</li> </ul>
<b>Appropriateness</b>	<ul style="list-style-type: none"> <li>▪ Is appropriate due to the aesthetic, ecological, environmental, social, cultural, recreational and economic values of the river catchment which require protection</li> <li>▪ Enables the community to be involved in the setting of minimum flow regimes and awareness of allocation limits that impact on them</li> </ul>

### 3.3 Analysis of Schedule 2D: Matters to be considered when setting minimum flows and allocation limits

#### Option A: Proposed Plan Change

A new Schedule 2D is added to the Water Plan. This schedule details the matters to be considered when setting minimum flow regimes and primary allocation limits.

#### Option B: Status Quo

No change is made to the Water Plan. No guidance is provided within the Water Plan on the matters to be considered when setting minimum flow regimes and primary allocation limits.

<b>SCHEDULE 2D</b>		
<b>Option</b>	<b>Benefits</b>	<b>Costs</b>
<b>A: Proposed Plan Change</b>	<ul style="list-style-type: none"> <li>▪ Increased transparency and certainty of process for the community</li> <li>▪ Community mandate for process</li> <li>▪ Outlines community involvement in the process of setting minimum flows</li> </ul>	<ul style="list-style-type: none"> <li>▪ Implementation costs (plan change and administrative)</li> <li>▪ Administrative costs</li> <li>▪ Reduced flexibility of process</li> </ul>
<b>B: Status Quo (no change)</b>	<ul style="list-style-type: none"> <li>▪ No plan change required</li> </ul>	<ul style="list-style-type: none"> <li>▪ Reduced transparency and certainty of process for the community</li> <li>▪ No community mandate for process</li> </ul>



### Recommendation

Option A: Proposed Plan Change is the preferred option. It identifies clearly the matters that ORC will consider when setting minimum flow regimes and primary allocation limits, and ensures transparency and certainty within the Water Plan. It is appropriate, effective and efficient as it meets the need of communities in Otago for clarity in regards to the ORC decision making process.

## **4.0 Consultation**

Community workshops were hosted by the ORC for the Waianakarua River in August and November 2007 (with approximately 60 attendees at the first workshop, and 30 at the second), for Trotters Creek in March 2008 (27 attendees) and for Luggate Creek in April 2008 (35 attendees). Subsequent to the Luggate Creek workshop, representatives from the Luggate community along with ORC, Fish and Game New Zealand - Otago and Department of Conservation identified a potential minimum flow regime which addressed all catchment values. On 7 April 2008 a meeting was hosted by Kai Tahu ki Otago Ltd and ORC for Otago Iwi to discuss and formally record the issues of importance to Maori.

The main values identified by the communities and iwi are:

- The Waianakarua River is one of the few rivers in North Otago with high water quality, supporting diverse biodiversity, including vulnerable native fish and remnants of native vegetation. It is important for the viability of commercial farming and gravel extraction operations, and has many recreational users.
- Trotters Creek is a source of good untreated drinking water. It supports values and activities of cultural importance, commercial ventures, recreational uses in and out of the water, extensive native fish populations and sustains biodiversity dependent on the creek and the gorge environment.
- Luggate Creek is valued for its water quality, aesthetics and biodiversity, fish habitat, historic use and image, recreational opportunities such as swimming and is important to the viability of farming operations in and out of the catchment.

The content of Schedule 2D reflects the matters that each catchment community considered in relation to what might constitute an acceptable minimum flow for their river.

Pre-notification meetings were held for the Waianakarua River and Trotters Creek (3 November 2008) and for Luggate Creek (10 November 2008) to discuss the proposed minimum flow regimes and primary allocation limits to be set in Schedule 2A. The meetings provided further clarification of how the rivers are valued. A change was made to the proposal for Luggate Creek following comments received and subsequent discussions at the Luggate Creek meeting. The winter seasonal flow period is being extended by one month, from September to October, to better allow for Brown Trout and Rainbow Trout spawning requirements.

Apart from the Department of Conservation and Fish and Game New Zealand, no comments were received on the consultation draft of the proposed plan change from Clause 3 Schedule 1 agencies.

## 5.0 Conclusion

Proposed Plan Change 1B (Minimum Flows) enables the establishment of minimum flows and primary allocation limits for these catchments, and the addition of these figures in Schedule 2A. The proposed plan change also details the matters to be considered when setting minimum flows regimes and primary allocation limits, by including Schedule 2D into the Water Plan. This report identifies that the preferred option is to undertake a plan change, and meets the requirements of section 32 of the Resource Management Act 1991 (RMA).

## 6.0 Reference Material

- *ORC Reports:*
  - 2002/577 - Priority Rivers for Minimum Flow Investigations
  - 2005/455 – Managing Minimum Flows
  - 2006/668 – Water Plan, Plan Change 1B (Minimum Flows): From Science to Plan
  - 2007/031 – Management Flows for Aquatic Ecosystems: Waiwera River, Trotters Creek and Luggate Creek
  - 2007/248 – Water Plan – Proposed Plan Change 1B (Minimum Flows)
  - 2008/475 – Consultation Draft of Proposed Plan Change 1B (Minimum Flows – Waianakarua River, Luggate Creek, Trotters Creek) to the Regional Plan: Water for Otago
  - 2008/537 – Notification of Proposed Plan Change 1B (Minimum Flows) to the Regional Plan: Water for Otago
  
- *Waianakarua River:*
  - Information Sheet – Waianakarua River, October 2008
  - Management Flows for Aquatic Ecosystems in the Waianakarua River, August 2006
  
- *Trotters Creek:*
  - Management Flows for Aquatic Ecosystems in Trotters Creek, August 2006
  - Information Sheet – Trotters Creek, October 2008
  - Trotters Creek – Flow Levels and Effects, October 2008
  
- *Luggate Creek:*
  - Management Flows for Aquatic Ecosystems in Luggate Creek, August 2006
  - Information Sheet – Luggate Creek, October 2008
  
- Waianakarua River, Luggate Creek and Trotters Creek community workshops notes, 2007-2008